

### **REMARKS**

The present Amendment amends claims 17-22 and 24 and claims 23, and 25-30 unchanged. Therefore, the present application has pending claims 17-30.

The Abstract of the disclosure stands objected to due to informalities noted by the Examiner in paragraph 1 of the Office Action. Various amendments were made throughout the Abstract to correct the informalities noted by the Examiner. Therefore, this objection is overcome and should be withdrawn.

The disclosure stands objected to due to informalities noted by the Examiner in paragraphs 2 and 3 of the Office Action. Various amendments were made throughout the specification to correct the informalities noted by the Examiner and other errors discovered upon review. Therefore, this objection is overcome and should be withdrawn.

Claims 1 and 24 stand objected to due to informalities noted by the Examiner in paragraph 4 of the Office Action. Claim 1 was canceled by the November 13, 2001 Preliminary Amendment. Therefore, the Examiner's objection to claim 1 is rendered moot. Amendments were made to claim 24 to correct the informalities noted by the Examiner. Accordingly, this objection is overcome and should be withdrawn.

Claim 24 stands rejected under 35 USC §101 being that the Examiner alleges that this claim recites that data is modulated by the modulator. Amendments were made to claim 24 so as to clarify that the data is demodulated by the demodulator. Therefore, claim 24 complies with the requirements of 35 USC §101. Accordingly,

reconsideration and withdrawal of the rejection of claim 24 under 35 USC §101 is respectfully requested.

Claims 23 and 25-30 stand rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 2, 6, 8, 13 and 14 of prior Patent No. 6,337,889. Applicants do not agree with this rejection. however, in order to expedite prosecution of the present application filed on even date herewith is a Terminal Disclaimer obviating this rejection. Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

It should be noted that the filing of the Terminal Disclaimer was not intended nor should be considered as an agreement on Applicants part that the features of the present invention as now more clearly recited in claims 23 and 25-30 are taught or suggested by the claims of the prior patent. The filing of the Terminal Disclaimer was simply intended to expedite prosecution of the present application.

Applicants acknowledge the Examiner's indication in paragraph 11 of the Office Action that claims 18-22 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Amendments were made to claims 18-22 to place them in independent form including all the limitations of the base claim and any intervening claims. Therefore, claims 18-22 are allowable as indicated by the Examiner.

Applicants note that claims 23-30 were not rejected based upon prior art. Therefore, amending claim 24 so as to overcome the 35 USC §101 rejection and objections, and the filing a Terminal Disclaimer with respect to claims 23 and 25-30 overcomes all outstanding issues with respect to these claims. Therefore, since the

rejections of claims 23-30 and the objections to claim 24 have been overcome, claims 23-30 are now in condition for allowance. Accordingly, early allowance of claims 23-30 is respectfully requested.

Claim 17 stand rejected under 35 USC §103(a) as being unpatentable over Chevillat (U.S. Patent No. 5,784,415) in view of Behrens (U.S. Patent No. 5,291,499). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claim 17 are not taught or suggested by Chevillat or Behrens whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to claim 17 so as to more clearly recite that the signal processing circuit includes an element of a discrete filter for converting the output from an equalizer into an asymmetrical waveform of  $(1 - D^2) (c_0 + c_1D + \dots + c_nD^n)$  not taught or suggested by any of the references of record particularly Chevillat and Behrens. It should be noted that this feature of the present invention now more clearly recited in claim 17 is substantially the same as that recited in claim 23 which was not rejected based upon prior art as noted above. Thus, the same reasons for not rejecting claim 23 based upon prior art apply as well to claim 17 as now amended.

Claim 17 was further amended to recite an element that the coefficient ( $c_0, c_1 \dots c_n$ ) are integer numbers which also not taught or suggested by Chevillat or Behrens. At no point is there any teaching or suggestion in Chevillat or Behrens of this element.

Thus, as is quite clear from the above, the features of the present invention as now more clearly recited in amended claim 17 are not taught or suggested by Chevillat or Behrens whether taken individually or in combination with each other as suggested by the Examiner. Therefore, reconsideration and withdrawal of the 35 USC §103(a) rejection of claim 17 as being unpatentable over Chevillat and Behrens is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claim 17.

In view of the foregoing amendments and remarks, applicants submit that claims 17-30 are in condition for allowance. Accordingly, early allowance of claims 17-30 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (500.36414CX1).

Respectfully submitted,

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